Abstract

Current Research indicates that students who are at-risk in learning to read experience difficulty in the area of phonological awareness. Poor phonological awareness skills such as the abilities to rhyme, break words into syllables, manipulate sounds in words, segment and blend words impacts on the student's ability to read unfamiliar words. The present study examines the effectiveness of explicit instruction in segmenting and blending words with consonant-vowel-consonant sound patterns in leading to improved accuracy in reading unfamiliar words.

A Year 1 student who has reading difficulties was exposed to 1:1 explicit teaching in segmenting and blending words with consonant-vowel-consonant sound patterns. Words with short vowel sounds were targeted and the focus was on developing skills at an oral level as well as word reading.

Word reading accuracy and segmenting and blending skills were tested prior to, during and after the intervention. Data collected was based on words with consonant-vowel-consonant sound patterns and included some pseudo words. The Sutherland Phonological Awareness Test was administered prior to and after the teaching session to assist in profiling the student's phonological awareness skills.

Comparative data demonstrated deficiencies with some phonological awareness skills. Pre-test results indicate difficulties which include segmenting spoken words accurately, blending spoken words, rhyming words and manipulating sounds in words. Difficulties were also noted with tasks matching phonemes to graphemes.

Post-test results demonstrate an improvement in the phonological skills targeted in this study and an increase in the number of unfamiliar words read accurately by the student. The study findings provide a support for the teaching of phonological awareness skills to students who are at-risk with learning to read.

Introduction

Phonological Awareness skills underpin many students ability to read. Love and Reilly (1998) emphasis that phonological awareness is not a reading instruction program but an important pre-requisite for reading instruction. It is an awareness of the sound structure of our language. Torgensen 2000:Tunmer & Chapman 1999 (cited in Westwood, 2001) believe success in reading correlates highly with skill level in the area of phonological awareness. Students who exhibit reading difficulties frequently have poorly developed phonological awareness skills. Further to this students who experience difficulty at a phonological level at an early age often experience problems in learning to read. Hempenstall (2001) refers to this as a reciprocal relationship. Research shows performance at a phonological level is seen as a predictor to later achievement in reading at the middle primary school level. (Tunmer & Hoover cited in Greaves, Coughlan, Souter & Munro,1998).

Some Students have difficulty in the specific area of phonemic awareness which is the aspect of phonological awareness that recognises words are made up of a sequence of individual phonemes. Westwood (2001) argues that children need to be aware of the individual phonemes in words as it makes it easier for them to read. Love and Reilly (1998) support this and state by attending to the detail of the sound structure of our language the association of sounds with letters is facilitated.

Snider (1997) includes phonemic awareness as part of the order of metalinguistic skills that children acquire. Through a teaching process, the children are eventually lead to a conscious awareness that words are made up of phonemes. Honig (1996) further supports the notion that phonemic awareness requires children being conscious of sounds and emphasises they need to learn the rules of combination and to develop an ability to manipulate sound segments.

Two of the processes that are important for children to master are segmenting and blending. Students need to be proficient in analysing sounds in words and also the ability to synthesis the sounds into a word. According to Hempenstall (2002) segmenting and blending are two phonemic awareness processes most closely involved with the reading process and are directly related to teaching letter-sound processes. These skills can impact on a student's ability to read accurately and efficiently. O'Connor, Notairi-Syverson & Vadasy (cited in Chard, 1999) explain some children have great difficulty in segmenting the sounds in words and then blending the sounds back to make a word. The explicit teaching of segmenting and blending the sequence of individual sounds in words orally assists a student in reading unfamiliar words. The student has to master phonemes and be able to link phonemes to graphemes and to manipulate the sounds to match the different positions of letters in words. This explicit instruction is particularly necessary for students who experience difficulty with the reading process. Greaves et al. (1998) stress students need to be able to master the grapheme-phoneme correspondence rules to accurately and efficiently read unfamiliar words.

A developmental sequence is suggested for the teaching of phonological awareness and the skills of segmenting and blending. Goswani (cited in Greaves et al.1998) explains the ability to identify accurately all of the phonemes in words appears a little later in early reading development and after rhyming and onset/rime skills

Munro believes (1998) there are important implications for literacy programming in diagnosing difficulties and implementing appropriate instruction when phonological processes are deficient. Munro (1998) outlines a sequence for teaching segmenting words into a sequence of sounds and suggests that being able to segment words orally into sounds is a critical foundation for learning to recognise unfamiliar words efficiently. He also discusses the 'phonemic segmentation span" a student may have which impacts on the length of words a student may be able to read. Munro (1998) suggests by

profiling the students phonemic segmentation span and analysing errors made on segmenting tasks a program can be developed to meet the identified needs of the student. Similarly a diagnosis can be made of blending skills and a program developed to target the needs of a student.

Westwood (2001) outlines the alphabetic principle students should grasp as part of a teaching program and this includes the ability to segment words into phonemes, an understanding that phonemes occur in all words, knowledge of direct letter-sound matches and a ability to manipulate sounds in words.

Students need to develop proficiency with the skills of segmenting and blending of spoken words and apply this knowledge to assist in the reading of unfamiliar words accurately and efficiently. Children's consciousness of sound patterns and their ability to segment and blend sounds are building blocks for future reading development.

The present study aims to link some of the theory outlined above by examining the influence of direct instruction in the phonological skills of segmenting and blending in reading unfamiliar words. This study is limited to words with consonant- vowel-consonant sound patterns and more specifically the words contain short vowel sounds. The study is limited to isolated word reading.

Hypothesis:

Explicit instruction in the skills of segmenting and blending of words with consonant-vowel-consonant sound patterns leads to improved accuracy in reading unfamiliar words.

Method

Design:

The study used a case study OOXO (Assess Assess Teach Assess) design in which the progress made in segmenting and blending spoken words with consonant-vowel-consonant sound patterns (short vowel sounds) was monitored. The accuracy in reading of words with consonant-vowel-consonant sound patterns (short vowel sounds) was monitored as part of the design.

Participant:

The participant was a Year 1 student who has a history of learning difficulties. The student is one of the oldest students in Year 1 and the classroom teacher reports this student operates well in the classroom at a verbal level. This student is able to organise work materials and follows class routines very capably, however has difficulty in learning new skills and concepts. The classroom teacher works within the ClaSS Literacy model and tasks are targeted at the student's identified needs. The student is reported to be operating below age-appropriate levels in reading and writing. This student has difficulty in remembering and automatically naming many common words when reading. The student is reported to have difficulty in sounding out and blending words when reading prose and confuses vowel sounds when analysing sounds in words. In writing sessions simple sentences are composed by the student and assistance is required in recording words. The student finds it difficult to use analogy in both reading and writing and part of this deficit may stem from a difficulty in learning to rhyme words. The participant has completed 20 weeks on the Reading Recovery Program. The student exited the program at an instructional reading level of 7. The student is currently working at an instructional level 8 within the classroom.

In the course of this study it would be expected the student may present with difficulties in the following areas:

- Learning and storing letter sounds

- Recognising and naming quickly letter names and sounds

- Learning and storing cvc words

- Recognising and naming quickly cvc words

- Segmenting cvc words accurately

- Blending cvc words accurately

Resources:

Pre-test & Post-test Materials:

- Word reading was assessed using an isolated word reading test of 15 items (Appendix 1)

- Segmenting word test (Appendix 2)

- Blending word test (Appendix 2)

- Segmenting pseudo-word test (Appendix 3)

- Blending pseudo-word test (Appendix 3)

- Sutherland Phonological Awareness Test. (Appendix 4)

Tasks:

- Rhyming words: picture sets, worksheets and word lists (Appendix 5)

- Flashcards with words based on cvc sound patterns (Appendix 5)

- Pictures /sound boxes for segmenting tasks (Appendix 5)

- Flashcards of letters of the alphabet (Appendix 5)

- Magnetic letters

- Counters marked with letters of the alphabet (Appendix 5)

Session outline:

- Proforma for recording each teaching session (Appendix 6)

Procedure:

The student worked 1:1 with the teacher in a small withdrawal room. The student was withdrawn from the classroom for testing and instruction sessions. The teaching sessions were of 25 minutes duration and a written record of each lesson plan was developed. (Appendix 6)

Session 1: Pre-testing 1

Session 2: Pre-testing 2

Sessions 3 & 4 Teaching sessions

➢ Identifying rhyme… picture level

➢ Rapid recognition of letters…vowels.

➢ Segmenting words..orally (Use of pictures/sound boxes)

➢ Blending spoken words

➢ Segmenting and blending words orally (Use of sound boxes)

Session 5 & 6 Teaching sessions

➢ Identifying rhyme…word level

➢ Rapid recognition of letters…consonant sounds as identified as a need in previous sessions

➢ Segmenting words..orally (Use of pictures/sound boxes)

➢ Blending spoken words

➢ Segmenting and blending words using counters /letters

➢ Self-reflection

Session 7 & 8: Teaching sessions

➢ Generating rhyme...picture level

➢ Rapid recognition of letters… consonant sounds as identified as a need in previous sessions

➢ Segmenting words...orally (Use of sound boxes)

➢ Blending spoken words

➢ Blending and segmenting words (Matching phonemes to graphemes eg labelling of pictures)

➢ Reading 10 cvc words

➢ Self-reflection

Session 9 & 10 Teaching sessions

➢ Generating rhyme…word level

➢ Rapid recognition of letters of alphabet…name/sound

➢ Segmenting words..orally

➢ Blending spoken words

➢ Blending and segmenting words (Matching phonemes to graphemes use of magnetic letters)

➢ Reading 10 cvc words

➢ Self-reflection

Session 11: Post-test

The teacher taught using a consistent sequence of activities. The main emphasis was on the segmenting of words and blending of words. Work was initially targeted at an oral level and as the student developed mastery of skills at a sound level, graphemes were introduced. Rhyming skills were also targeted during each session as well as alphabet knowledge. The teacher modelled tasks as necessary and scaffolded the student at point of need.

Teaching session included the following steps. However it is important to note that as the skill level of the student improved the number and complexity of the tasks was increased.

• Identifying rhyme and generating rhyme

- Rapid naming of letter names and sounds

- Segmenting cvc words

- Blending cvc words

- Segmenting and blending cvc words

- Reading cvc words

- Self-reflection

Data collection:

As this was an individual case study a control group was not part of the study. The procedure used to establish a control was to administer two sets of pre-tests. The pre-tests were administered a week apart and during this time no intervention took place. Tests were then administered at the end of the intervention to measure the student's progress and the effectiveness of the teaching program. These results were compared with the results from both pre-test 1 and pre-test 2.

The same assessment tools were used for both pre-testing and post-testing.

Pre-test 1 & 2. Post-test.

 Data was collected using the following assessment tools:

- Pseudo word blending

- Pseudo word segmenting

- Segmenting words

- Blending words

- Word reading

- Sutherland Phonological Awareness Test

At the end of each teaching session the teacher evaluated the progress of the student and kept cumulative records based on:

- The accuracy of the student in completing tasks focussing on

  ➢ Segmenting

  ➢ Blending

  ➢ Word reading

- Observation

Results

The student's performance is described in six sections. Section 1 is in table format and identifies the student's ability to *segment and blend spoken words* and *pseudo-words* using tasks from Westwood (2001). Section 2 is in table format and identifies the student's ability to *read words with consonant-vowel-consonant sound patterns.* Section 3 details the sub-tests administered from the *Sutherland Phonological Awareness Test.* and the information is described using a table format.

Section 4 is in graph format and compares the student's performance in *reading word tasks* for pre-test 2 and the post-test. Sections 5 & 6 compares the student's performance in *segmenting and blending tasks* respectively using data collected from pre-test 2 and the post-test. Raw scores were converted to percentages for all tasks and are represented as percentages in all tables and graphs. (See appendix 7 for raw scores)

It is important to note that pre-tests 1 & 2 were administered a week apart and during this time no intervention took place. Pre-test 2 was administered immediately prior to the intervention program commencing. The post-test was then administered at the end of the intervention to measure the student's progress and the effectiveness of the teaching program.

Section 1. Ability to segment and blend spoken words and pseudo-words.

The student's accuracy in segmenting and blending was measured using spoken words and pseudo-words. The results are described using data from pre-tests 1 & 2 and post – tests.

Variance was noted in the results for the segmenting tasks administered in pre-tests 1 & 2. The student performed significantly better on the segmenting words task administered in pre-test 2 and significantly lower in pre-test 2 when segmenting pseudo-words. A gain was made by the student when post-testing was administered with both sets of results in the segmenting tasks reflecting an increase in skill level. A greater improvement was demonstrated in segmenting words in the pseudo-word task.

The results of the blending task using pseudo-words showed no variance in pre-tests 1 & 2 as the accuracy remained the same for each pre-test. Post-test results indicate an improvement in student performance on the task using pseudo-words. The results of the blending task using spoken words varied with each test and the greatest accuracy was evident in pre-test 2. A gain was made by the student when blending pseudo-words.

In three of the tasks administered improvement was demonstrated.

The results are described below in Table 1.

Table 1: Percentage of words segmented and blended accurately in Pre and Post-tests using Westwood tasks.

Task	Pre-test 1	Pre-test 2	Post-test
Segmenting word task	40%	40%	100%
Blending word task	70%	90%	80%
Segmenting pseudo words	80%	40%	93.3%

Section 2. Reading of words with consonant-vowel-consonant sound patterns.

The student's accuracy in reading words with consonant-vowel-consonant sound patterns was measured using a list of 15 words. The accuracy of the student when reading words with consonant-vowel-consonant sound was the same for pre-test 1 & 2. Post-test results show a significant improvement in the student's performance with a gain of 60% made.

The results are described in Table 2.

Table 2: Percentage of words read accurately in Pre and Post- tests

Task	Pre-test 1	Pre-test 2	Post-test
Reading cvc sound pattern words	6.6%	6.6%	66.6%

Section 3. Sub-tests administered from the Sutherland Phonological Awareness Test.

An overview of the student's phonological skills was identified by administering a number of the grade appropriate subtests from the Sutherland Phonological Awareness Test. Pre-test 1 & 2 showed variance in the student's performance in the subtests measuring rhyme detection and production, segmenting and blending, identification of final phonemes and deletion of initial phonemes. The student's performance in pre-tests 1 & 2 remained the same for the subtests measuring syllable counting, identification of onset and non-word reading.

Post-test results indicated an improvement in student performance for four of the tasks these being rhyme production, segmentation, blending and non-word reading.

The results are described below in Table 3.

Table 3: Results of tests administered using the SPAT

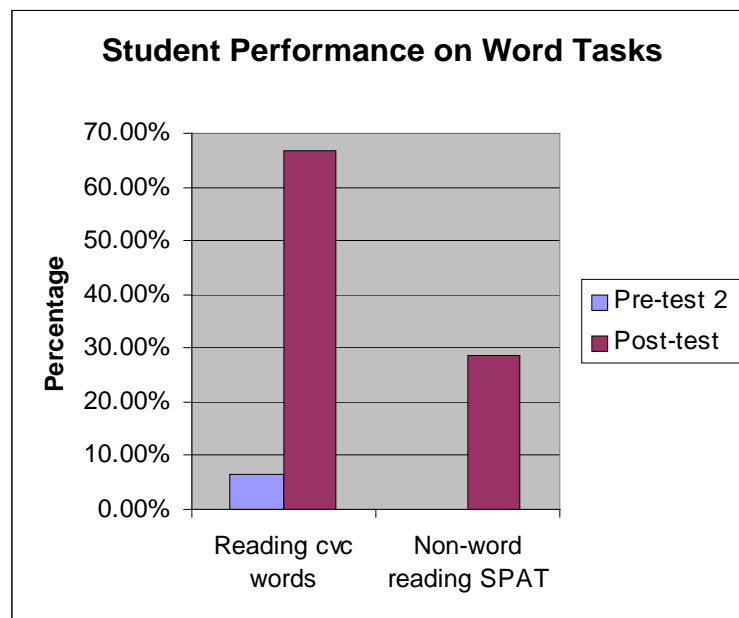| Task	Pre-test 1	Pre-test 2	Post-test
Syllable counting	100%	100%	75%
Rhyme detection	75%	100%	100%
Rhyme production	50%	75%	100%
Onset	100%	100%	100%
Final Phoneme	50%	100%	100%
Segmentation	50%	25%	100%
Blending	100%	75%	100%
Deletion	25%	0%	0%
Non-word reading	0%	0%	28.5%

Section 4. Summary of student performance in all word reading tasks

Post-testing data shows the student made an improvement in word reading tasks when compared with results from pre-test 2 administered prior to the intervention program being introduced. Gains were made on the task in which the student had to read words with consonant-vowel-consonant sound patterns. Reading of non-words (nonsense

words) on the Sutherland Phonological Awareness Test (SPAT) showed an

improvement also.

 In pre-test 2 the student did not score on the on the task included in the SPAT test.

The results are compared in graph1.

Graph 1: Summary of student performance in all word reading tasks

**Student Performance on Word Tasks**

Section 5: Summary of results of student performance on segmenting tasks.

Post-testing results indicate the student made an improvement in all segmenting tasks

when compared with results from pre-test 2 administered prior to the intervention

program being introduced. Gains were made on segmenting spoken words and pseudo-

words.

See comparisons in graph 2.

Graph 2: Summary of student performance on segmenting tasks.

**Student Performance on Segmenting Tasks**
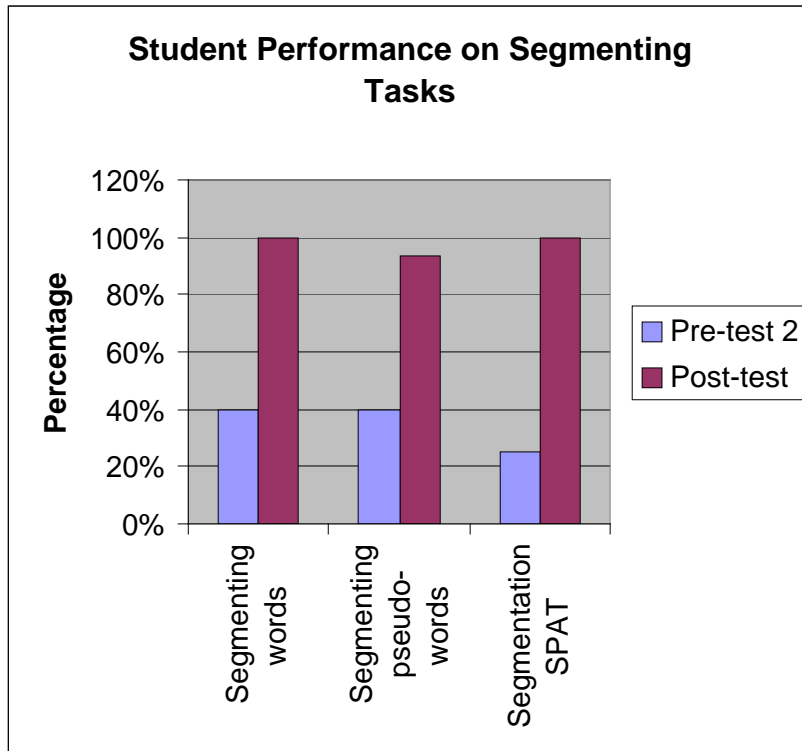
Section 6: Summary of student results on all blending tasks.

Post-testing results indicate the student made an improvement in the blending task administered as part of the SPAT test and the blending task using pseudo-words when compared with results from pre-test 2 administered prior to the intervention program being introduced. The blending-words task showed a slight decrease in accuracy. See comparisons in graph 3.

Graph 3: Summary of student results on all blending tasks.

Student Performance on Blending Tasks
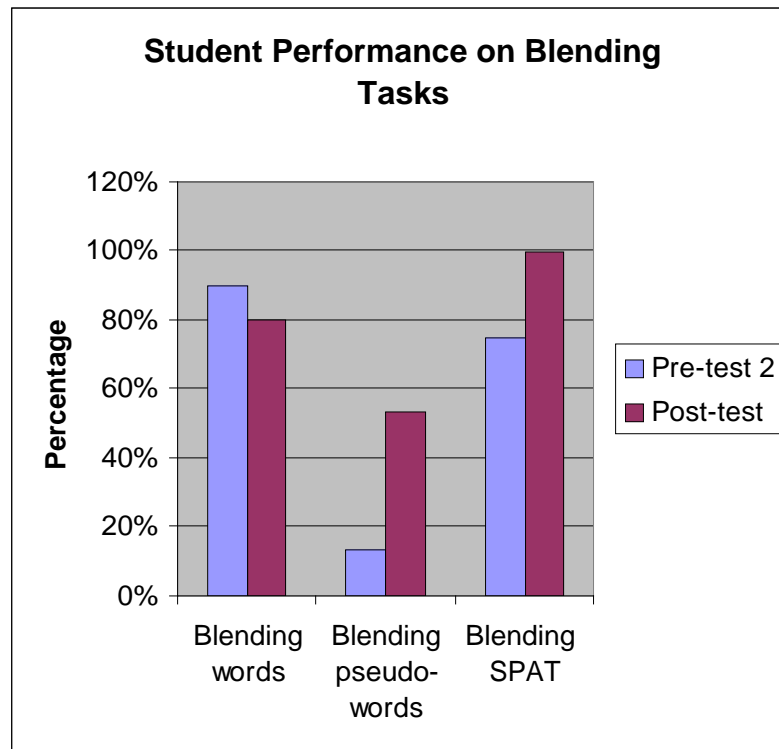
Discussion

The current study aimed to link the effectiveness of explicitly teaching segmenting and blending skills to assist students in reading unfamiliar words. The results support the hypothesis being tested as the data shows an overall improvement in student performance in word reading. Comparison of results prior to the intervention program with post-test results indicate student accuracy in the word reading task (consonant – vowel-consonant sound patterns) improved by 60%. Pre-tests show limited application of segmenting and blending skills to read unfamiliar words and a tendency to guess or use visual distinctive features to read words. It is important to note when analysing the results of the post-test word reading task that the student independently applied segmenting and blending skills to decode the majority of the words.

The student can strategically apply these skills when attempting to decode unknown words.

An integral part of the teaching intervention was to ask the student to reflect on the teaching/learning which took place during a teaching session and to discuss when and how the learning could be applied. Not only is it important for the student to learn the skill but to be able to transfer the knowledge at point of need. Evidence of this transfer of knowledge was shown when the student independently applied segmenting and segmenting skills to read unknown words in the post-test. It is hoped that metacognitive thinking strategies have been enhanced as a result of the teaching intervention.

In early teaching sessions the student required much scaffolding and teacher modelling to successfully attempt and complete tasks. This gradually changed as the student gained mastery of skills and after about 5 teaching sessions it was observed and recorded using anecdotal notes that the student required less teacher modelling and scaffolding.

The student's ability to segment words and pseudo-words improved overall. Each teaching session focussed strongly on segmenting spoken words with links to graphemes gradually introduced into sessions. During teaching sessions the student's ability to segment words accurately was effected by a confusion of letter names and sounds. Difficulties were evident in particular with ending sounds. Letter names and sounds were revised in each session. However to target more effectively difficulties with confusions, the battery of tests administered in pre and post-tests could be expanded to include a letter name/sound identification test. The accurate identification of phonemes is a crucial phonological processing skill and the match to graphemes needs to be correct for accurate reading of words.

The blending word tasks showed little variance in pre and post-tests. A significant increase of skill was noted in the blending pseudo-word task. However In the post-test there was evidence of letter sound confusion particularly at word ending level. The student made progress however if a greater emphasis had been placed on word endings during teaching sessions blending outcomes on the pseudo-word task may have been more successful.

The Sutherland Phonological Awareness Test showed the student has difficulty in deleting and manipulating some sounds in words and aspects of rhyme identification and production. Although rhyming words were not part of the study activities were included in each session with an emphasis on rhyme identification and rhyme production. Activities were completed orally and using pictures. Difficulties were noted in generating rhyming words orally. Tasks using pictures to generate and identify words were generally easier. Many resources were available to support teaching sessions and develop relevant tasks. It was interesting to note the student became distracted by unimportant details such as the different colours of counters used for activities. Selection of materials would be an important organisational detail in the future with the view to minimising distracting features.

 As the student presented with a number of learning difficulties it was important to remain focussed on the hypothesis being tested and ensure planned intervention activities targeted or supported the teaching of skills of segmenting and blending words with consonant–vowel-consonant sound patterns.

Future research could include more precise testing of letter identification in which the student would be asked to identify the letters of the alphabet by name and by sound. Prose reading could also be included. This study demonstrates an increase in accuracy when reading words in isolation but did not include an outcome related to prose reading.

Prose reading would provide an opportunity for the student to transfer skills to a more meaningful context. Prose reading would also provide an opportunity to test the impact segmenting and blending may have on reading accuracy, efficiency and fluency on continuous text.

Current theory and research supports the importance of teaching phonological awareness skills and particularly phonemic awareness to students who are at risk in learning to read. O'Connor, Slocum & Jenkins (cited in Hempenstall, 2002) reported a study in study in which explicit instruction was given to at-risk beginning readers in the areas of blending and segmenting, and letter-sound combinations with the results showing significant educational gains for the students. Hempenstall (2002) reports for phonologically alert students successful decoding will be precipitated by an understanding of the relationship between grapheme sequences, letter sounds and pronunciation.

Results from this current study demonstrated the effectiveness of explicitly teaching segmenting and blending skills to a student using both spoken and written words. The teaching program developed skill levels in the student to the point that they could be successfully applied to the reading of unfamiliar words. An increase in accuracy when reading unfamiliar words was shown by comparing pre and post-test results thus giving evidence to the value of teaching phonological awareness skills.

Students who are at-risk in learning to read benefit from being proficient in segmenting and blending the phonemes of our language. Difficulties in reading may be reduced if students develop strategies to map this knowledge to visual letters to assist with reading unfamiliar words.

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Appendix 1

Words in isolation list.

Hop

Bag

Zip

Mob

Wax

Keg

Van

Yes

Jet

Cup

Lid

Fix

Pin

Hat

Pig

Adapted form Wordswork: Richard Lee Publishing. 1994.

Appendix 2

BLENDING

I am going to say some words very slowly so that you can hear each sound. Like this:
/aaa/t = at, /h/i/t = hit. I want you to tell me what the word is. If I say /i/n, what do you
say? Yes, = in.
Let's try. (Sound the phonemes at the rate of one per second. Discontinue after about
five failures.)

Use a v for each correct response.
Write beside the word any incorrect response.
Note any self-corrections with the code s.c.

1 i - f	**6** g – o - t
2 a - t	**7** m – e -n
3 u - p	**8** b – u - t
4 o - n	**9** c – a - t
5 a - m	**10** d – l - g

SEGMENTATION
When I say a word I want you to tell me each sound in that word. For example, if I say
"ran" you say "/r/ - /a/ - /n/". If I say "pig" you say "/p/ - /i/ - /g/"
Let's tr
Use a v for each correct response.
Write beside the word any incorrect response.
Note any self-corrections with the code s.c.

1 cat
2 man
3 red
4 hot
5 bus

Adapted from Westwood, P. (2001). <u>Reading and learning difficulties: Approaches to
teaching and assessment</u>.

Sounding and blending pseudo-words.

The following list may be used to assess a child's ability ti use basic phonic knowledge to sound and build nonsense words. The use of nonsense words rather than real words eliminates the possibility that the child can recognise words by sight. This informal assessment enables the teacher to appraise a child's decoding skills without the support of meaning and context.
Note: Some children will believe that they should try to say a "real" word. In such cases, provide extra demonstrations to show that the word in not a real word and is not supposed to be a real word.

Demonstration items

"In this puzzle we are going to read some words you have never seen before. They are not real words. Listen as I read the first three words. I will sound them out.

mep /m/ /e/ /p/ =mep	
sut /s/ /u/ /t/ = sut	
bof /b/ /o/ /f/ = bof	

Sounding and blending pseudo-words.

Now you look at these words and sound them out. Let's try.

Use a v for each correct response.
Write beside the word any incorrect response.
Note any self-corrections with the code s.c.

1 lem	
2 dop	
3 wep	
4 bup	
5 mig	
6 jum	
7 raz	
8 sul	
9 yun	
10 tog	
11 ked	
12 neb	
13 hif	
14 vit	
15 vos	

Adapted from Westwood, P. (2001). Reading and learning difficulties: Approaches to teaching and assessment.

__Appendix 4__

Sutherland Phonological Awareness Test

HARD COPY ONLY

Example of activities included in the teaching sessions.

<u>Rhyming words</u>
Identifying rhyme
Picture level eg. Put a counter on the picture that rhymes with the one in the first box.

Pictures in hard copy Unavailable on electronic copy		

Word level eg. Tell me the words that rhyme in each set of words

hat	cat	dog
tree	rock	key

Generating rhyme
Picture level eg. Draw a picture in the box that rhymes with the other pictures in the row.

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Word level eg. Tell me a word that rhymes with the words I say.

Dog	fog	……..
Peg	Meg	……..

Rapid naming of letter names and sounds

Each letter is to be quickly recognised and named. Sounds to be given also.

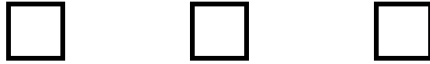Alphabet cards eg.   a   b   c   d   e   f

Segmenting cvc words

Use of pictures and sound boxes eg. For every sound you hear push a counter into the

box

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Pictures in hard copy Unavailable on electronic copy		

Use of word and sound boxes eg. For every sound you hear push a counter into the box

Word told orally eg. hat, cup, peg

☐   ☐   ☐

Blending cvc words

Sound each letter in the word and ask the student to blend eg.
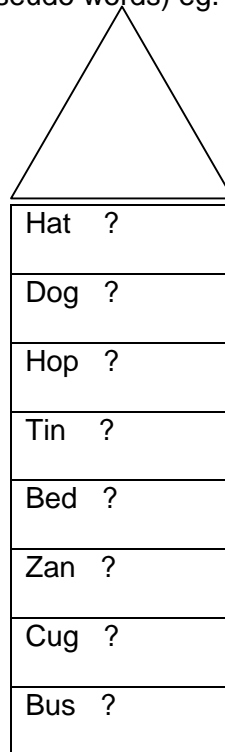
h.a.t.   d.o.g.

b.o.x.   p.e.t.

Sound each letter in the word and ask the student to blend then identify the picture that

matches the word by placing a counter on it eg. s.u.n   p.i.n   b.u.g.

Pictures in hard copy Unavailable on electronic copy		

Sound each letter in the word and ask the student to locate the word by placing a counter on it (including pseudo words) eg. Rocket fun
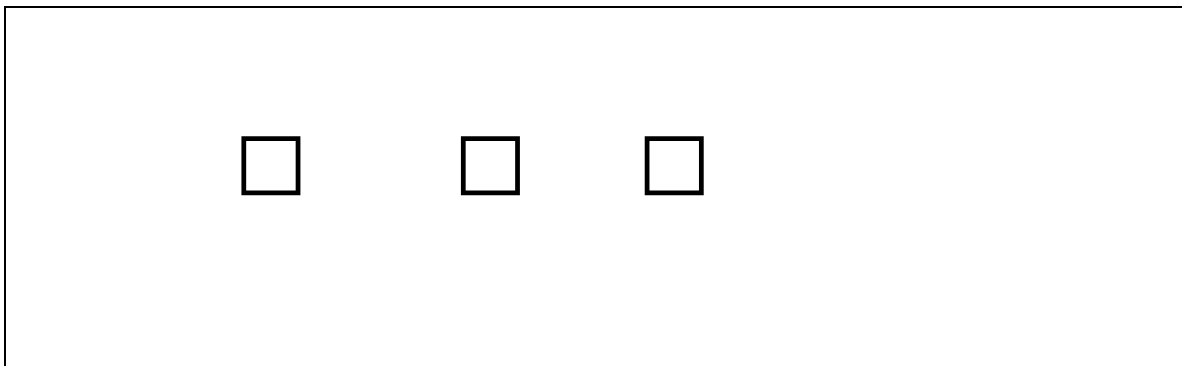
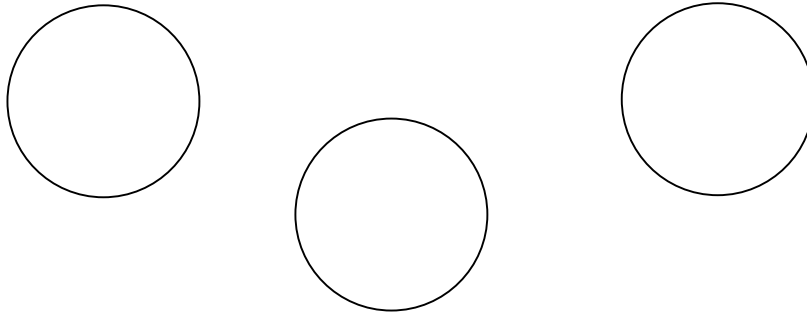| Hat	?
Dog	?
Hop	?
Tin	?
Bed	?
Zan	?
Cug	?
Bus	?

Segmenting and blending cvc words

CVC words orally given eg. Segment using sound boxes and blend to make a word.

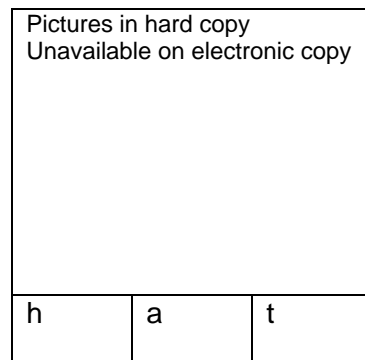Use of words and pseudo-words could include man, hop, sit, mab, cut,

Use counters with individual letters on each counter to segment and blend words eg.

(letters not able to be placed on electronic copy)

Use of pictures to segment and blend words and match phonemes to graphemes eg.

Pictures in hard copy Unavailable on electronic copy		
h	a	t

Reading cvc words

Read the words (including pseudo words) on each card eg.

cat		dog		fix		man		sud

<u>Self-reflection</u>

Ask questions such as:

What did you learn?

How could you use it?

When would you use it?

Appendix 6

Lesson: **Date:**   **Teacher:**
Focus: Segmenting and blending

Lesson outline	What the child did
Evaluation	**Resources**

Raw scores for words segmented and blended accurately in Pre and Post tests using Westwood tasks

Task	Pre-test 1	Pre-test 2	Post-test
Segmenting words task (5 items)	2	2	5
Blending words task (10 items)	7	9	8
Segmenting pseudo words (15 items)	12	6	14
Blending pseudo words (15 items)	2	2	8

Raw score for words read accurately in Pre and Post- tests

Task	Pre-test 1	Pre-test 2	Post-test
Reading cvc words in isolation (15 items)	1	1	10

Raw score of results of tests administered using the Sutherland Phonological Awareness Test

Task	Pre-test 1	Pre-test 2	Post-test
Syllable counting (4 items)	4	4	3
Rhyme detection (4 items)	3	4	4
Rhyme production (4 items)	2	3	4
Onset (4 items)	4	4	4
Final Phoneme (4 items)	2	4	4
Segmentation (4 items)	2	1	4
Blending (4 items)	4	3	4
Deletion (4 items)	1	0	0
Non-word reading (7 items)	0	0	2